

Remarks in Support of Patentability

From the examiner's comments made in support of the rejections in the official action of 19 September 2007 it is clear to applicants that the examiner does not appreciate the differences as between the supports of the present invention as claimed and the blank for manufacture thereof, relative to the "box" prior art cited by the examiner. It is further apparent to the applicants that the examiner does not appreciate or has not considered the substantial load bearing capacity of the supports, as claimed, once those supports have been fabricated from the claimed blanks and how such load bearing capacity alone, without more, distinguishes, in a patentable manner, the supports of the invention over the prior art cited by the examiner. Applicants believe these remarks will clarify all of this for the examiner.

Some of the main differences between the claimed blank and the claimed support of this invention and the cited prior art are as follows:

i) in the application claims 11 through 15 are directed to a corrugated cardboard support, which once erected is not designed to be a container, but rather has been designed to act as a support and hence has different and non-obvious properties, characteristics and functional requirements relative to the prior art cited. All of the prior art cited in the office action discloses containers or cartons for holding goods, not supports suitable, for example, for displaying heavy goods of substantial weight.

ii) in the application claims 1, 2, 4-10, 16 and 17 are directed to a corrugated cardboard blank, which may be used to form the support and which has two end flaps 17 and 20 located on either side of the main body forming panels. A key feature of the two end flaps is that both are substantially the same length as the middle body panel 19. When the blank is formed into a support, these two end flaps are secured together such that one wall of the support will effectively be double thickness.

In addition, whilst the claims refer to the flaps being substantially the same length as the main body forming panels, it is also a key feature that the flaps are substantially the same size as the middle panel, a feature which is apparent from the figures and also clearly required in the support since the side walls are to be equal height. It is this double thickness provided by the blank that gives the support additional strength and which also has the result that the support made from the blanks cannot be opened once constructed.

iii) the support and blank comprise body forming panels with opposing side flaps on either side of the main body forming panel, each being provided with an indent. One pair of opposing side flaps has rounded surfaces and a second pair of opposing side flaps have angular surfaces. It is *the combination of the interlocking of a rounded and an angular surface on adjacent side flaps on opposing sides of the blank that provides the superiorly strengthened double blind support* according to the invention.

When the rounded and angular surfaces on the notches engage, the notches 'bite' into each other as the support is assembled, providing added strength for the support.¹ The nature of the indents ensures that the interlocked flaps are in fact difficult to open, providing further added strength to the support.

iv) the support is not designed such that the indents on the side flap slide over one another. Once erected and glued, the support *cannot be collapsed* without destroying the support.²

This application is directed to the corrugated cardboard support and a blank for manufacture of the support. A fundamental difference exists between the support of this application and the prior art cited in the official action - the support of this invention is not designed to be a container, it has been designed to act as a support and hence has different properties, functional characteristics and requirements relative to the cited prior art. All of the prior art cited to in the office action describe containers or cartons for holding goods, not supports suitable, for example, for displaying goods.

The claimed corrugated cardboard support of this invention is prepared from a corrugated cardboard blank, also the subject of claims in this application.

¹ This is in contrast to the Examiner's assertions that the indents slide easily over each other during assembly and disassembly.

² Despite the Examiner's view that it is only the nature of the indents which differentiates the present invention from the prior art, this is in fact not the case.

Once the blank is formed into the support, interconnection of flaps 11,14 and 22,25 results in a “double blind” support that is extremely difficult to re-collapse, thereby providing the required structural integrity of the support. See paragraph 0025 of the specification regarding this feature.

In paragraph 3, the examiner has rejected claims 1, 2, 4-9 and 11-15 under 35 U.S.C. 103(a) as allegedly being unpatentable over Ringer in view of either Weaver or Forbes, Jr.

In that paragraph the examiner submits that Ringer discloses all of the structural limitations “of the claimed blank and container except a rounded surface in the other opposing side flaps. Each of Weaver and Forbes, Jr. teaches that is known to make automatically collapsible end closures with rounded surfaces or edges (47, 59; rounded edges of flaps 22,24, respectively).” The examiner then contends that “it would have been obvious to make the auto end closures in Ringer with rounded edges as taught by either Weaver or Forbes, Jr. to allow easier sliding engagement/disengagement of the interlock during erection and collapse of the container”.

In reply to this rejection applicant submits the following chart detailing the differences between the structure recited in claim 1 and the disclosure of Ringer:

	Claim 1	Ringer
1	A corrugated cardboard blank for folding and glued construction of a <i>support</i>	Disclosed is a blank (see figure 2) for a collapsible <i>container</i> (and page 2 lines 32-33).

2	which upon such construction cannot be unglued and returned to the unfolded blank state,	in transforming the blank 22 into carton 12, attachment portion 26b has to be glued to the adjacent end wall panel 27 (page 3, lines 65 to 67). Further portion 28b is glued to adjacent endwall panel 29 (page 4 lines 21 to 23).
3	comprising <i>two</i> main body forming panels,	generally comprises <u>four</u> substantially equal sidewall panels 16, 17, 18 and 19, page 3, lines 21 to 23 and Figure 2.
4	<i>a middle panel between said body forming panels</i>	<i>no separately defined middle panel, see Figure 2.</i>
5	and two end flaps provided at one end of the each main body forming panel, <i>each end flap having a length substantially the same as the length of the middle panel,</i>	comprises one end flap or connecting panel 20, and a second end flap which is one of the four sidewall panels 19 and 25 (Fig 2), however, <i>each end flap does not have a length substantially the same as the length of a middle panel or one of the sidewall panels (see Fig 2), indeed the connecting member 20 in Figure 2 is considerably shorter in length than any of the other panels.</i>
6	each main body forming panel and the middle panel having opposing side flaps,	each of the <u>four</u> main body panels does have opposing side flaps, 26, 27, 28 and 29 (fig 2).
7	each side flap of the main body forming panels being provided with an indent	side flaps 26 and 28 posses indents (Fig 2).
8	wherein the <u>indent on one of each opposing side flap has a rounded surface</u>	<i>no rounded surfaces on the side flaps</i>
9	and the indent on the other opposing side flap has an angular surface	all sides flaps have angular surface, see side flap 26 and 28 and opposing flaps (fig 2)
10	<i>for lockingly securing the side and end panels into weight bearing supporting disposition.</i>	Notches 26a and 28a can be drawn into an interlocking arrangement when the container 10 is manipulated from a collapsed to an

	<p>*****</p> <p>In the present invention once the blank is erected into the support of the present invention the support cannot be fully collapsed without destroying the support.</p>	<p>erect state (<i>page 4 lines 25 to 28</i>).</p> <p><i>In addition, the collapsible container is designed to be manufactured to allow the container to be folded or collapsed after the material within the container has been removed by the action of force on the corners 80, 81 of the container 10 (page 5, lines 51-56). That is the container will collapse when a force or load is applied.</i></p>
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In contrast to the examiner's assertion that Ringer discloses all of the structure of the claimed blank and container "except a rounded surface on the other opposing side flaps", applicant submits that there are a number of structural differences between Ringer and the claimed blank as highlighted clearly by features 1, 3, 4, 5, 8 and 10 of claim 1 as set forth in the chart above.

In this invention once the blank is erected into the support, the support cannot be fully collapsed without damaging the support.

Furthermore, the rounded and angular surfaces on the notches have the effect of 'biting' into each other when the support is assembled to provide added strength for the support. This is in contrast to the examiner's speculative assertions that the indents slide easily over each other during assembly and disassembly. Applicant notes that the nature of the indents ensures that the interlocked flaps are in fact difficult to open, again providing added strength to the support, a feature apparently not appreciated by the examiner heretofore.

In the invention, a further key feature providing yet more strength to the erected support rests with the size of the end flap 17, having “a length substantially the same as the length of the middle panel”, as recited in claim 1 respecting the blank piece to assemble and as recited in claim 12 respecting the assembled support. In Ringer the connecting panel 20 is clearly only one quarter of the size of the body panels, serving merely as a lip for securing the open sides of the carton.

An ordinarily skilled person in the art of making cartons would never contemplate the excessive use of extra cardboard for the connecting panel 20 as this adds weight to a container and uses more cardboard thereby increasing costs. In the era of the “green” mindset, such excess use and incorporation of extra cardboard would surely be unobvious to the ordinarily skilled artisan.

In this invention however, as claimed in the claim language quoted above, the end flap is essentially the same length as the middle portion 17 thereby effectively providing a double thickness wall on one side of the support, once constructed, and hence further strength.

In further reply to this rejection applicant submits the following chart detailing the differences between the structure defined in claim 1 and the disclosure of Weaver.

	Claim 1	Weaver
1	A corrugated cardboard blank for folding and glued construction of a <u>support</u>	Disclosed is a blank (see figure 1) for a paperboard <u>carton</u> which can be securely locked into a closed position without adhesives or

		overwraps (page 2 lines 8 to 11). However, the patent further refers to glue flaps and tabs 20, 48 and 60.
2	which upon such construction cannot be unglued and returned to the unfolded blank state,	A further object of the invention is to provide a carton that can be placed in a collapsed or knocked down condition and then easily erected for packing (page 2 lines 27-28).
3	comprising <u>two</u> main body forming panels,	comprises <u>four</u> substantially equal body panels 12, 14, 16 and 18, Figure 1.
4	a middle panel between said body forming panels	<i>no separately defined middle panel, see Figure 1.</i>
5	and <u>two</u> end flaps provided at one end of the each main body forming panel, each end flap having a length substantially the same as the length of the middle panel,	comprises <u>only one</u> end flap in the <u>form of glue flap, 20</u> (Fig 1), and the <i>end flap does not have a length substantially the same as the length of a middle panel or a length substantially the same as one of the sidewall panels (see Fig 1).</i> <i>The 'glue flap' 20 in Figure 2 is considerably shorter in length than any of the other panels.</i>
6	<u>each</u> main body forming panel and the middle panel having opposing side flaps,	<i>each of the four main body panels do not have opposing side flaps, side flaps 38, 48, 50 and 55 (Fig 1) are only on one side of the blank.</i>
7	each side flap of the main body forming panels being provided with an indent	Only side flaps 43 and 55 on one side of the blank possess indents (Fig 1)
8	wherein the indent on one of each opposing side flap has a rounded surface	rounded surfaces on <u>adjacent</u> side flaps, <u>not</u> on one of a pair of opposing side flaps
9	and the indent on the other opposing side flap has an angular surface	<u>no</u> angular surfaces on opposing side flaps.
10	for lockingly securing the side and end panels into weight bearing	Notches 47 and 59 may be drawn into an interlocking arrangement, page 5 lines 22-23. however, this arrangement

	supporting disposition.	is only at one end of the container therefore the container is unsuitable for bearing weight.
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Weaver's disclosure clearly differs from claim 1 in terms of features 1 and 3 to 10 above.

Weaver does not teach that "each main body forming panel and the middle panel having opposing side flaps", as recited in claim 1; in Weaver *the flaps are all located on one side of Weaver's blank*.

Whilst Weaver discloses side flaps of the body forming panels being provided with an indent, Weaver does not teach a blank with one pair of opposing side flaps having rounded surfaces and a second pair of opposing side flaps having angular surfaces. It is the combination of the interlocking of a rounded and an angular surface on adjacent pairs of side flaps positioned on opposing sides of the blank, as recited in claim 1 per the language quoted above, that provides the superiorly strengthened double blind support of this invention.

Starting with the blank of Ringer, to achieve a blank with side flaps identical to the blank of this invention it would be necessary to choose intentionally to provide **differently** shaped indents on the flaps of the blank, and then to arrange to have **differently** shaped indents on adjacent side panels. **In both Ringer and Weaver the side flaps are the same.**

Once having made the decision to have differently shaped side flaps on adjacent side panels, one ordinarily skilled in the art would need to select one of the adjacent side panels with a rounded surface and another with an angular indented surface. There is no suggestion or direction in Ringer and Weaver, taken either alone or in combination, to make this selection, as recited in applicant's claim 1 as quoted above.

Furthermore, there is nothing in Ringer and Weaver, either when taken alone or in combination, to suggest to one of ordinary skill to further change both the shapes of the side panels and the nature of the end panels in the manner claimed by applicant.

Therefore the invention as claimed in claim 1 is not obvious over any combination of Ringer and Weaver.

Applicant presents the following chart to illustrate the differences between the structure section in applicant's claim 1 and the disclosure of Forbes, Jr.:

	Claim 1	Forbes, Jr.
1	A corrugated cardboard blank for folding and glued construction of a <u>support</u>	Relates to a <u>carton</u> for packaging food, more specifically a carton formed from a separate cover and tray (page 1, lines 1-33), which is glued.
2	which upon such construction cannot be unglued and returned to the unfolded blank state,	once glued the blank <u>can</u> still reside in a collapsed state, see Fig 3 and page 2 lines 14-15.
3	comprising two main body forming panels,	Has two main body forming panels 16, 18 (Figure 1).

4	a middle panel between said body forming panels	Has a middle panel 17 (Figure 1).
5	and two end flaps provided at one end of the each main body forming panel, each end flap having a length substantially the same as the length of the middle panel,	comprises two flaps 15 and 19 (Fig 1) however, <i>each end flap does not have a length substantially the same as the length of a middle panel, indeed glue flap 19 is considerably shorter in length than any of the other panels</i>
6	each main body forming panel and the middle panel having opposing side flaps,	<i>each body panel does not have opposing side flaps, only flaps on one side of the blank (see figure 1).</i>
7	each side flap of the main body forming panels being provided with an indent	side flaps 22 and 24 do possess indents (Fig 1) but these are only on one side of the blank.
8	wherein the indent on one of each opposing side flap has a rounded surface	<i>The indent on adjacent side flaps has rounded surfaces but not on opposing side flaps (Fig 1).</i>
9	and the indent on the other opposing side flap has an angular surface	No opposing side flaps with angular surfaces. (Fig 1)
10	for lockingly securing the side and end panels into weight bearing supporting disposition.	Side flaps 22 and 24 can interlock but the notches on the flaps are so wide that the flaps will slide open, and so the tray <i>can not bear weight</i> .

From the foregoing, just as is the case with Weaver, Forbes, Jr. also clearly differs from claim 1 in terms of features 1,2,5,6,8,9 and 10 highlighted above.

Forbes, Jr. does not teach each main body forming panel and the middle panel having opposing side flaps; instead Forbes' flaps are all located on one side of Forbes' blank.

Forbes, Jr. does not teach a blank with one pair of *opposing* side flaps having rounded surfaces and a second pair of *opposing* side flaps having angular surfaces. Hence the interlocking combination of a rounded and an angular surface on adjacent side flaps on opposing sides of the blank, as recited in applicant's claim 1, is not disclosed nor suggested by Forbes.

The same arguments regarding the speculative combination of Ringer and Weaver as set forth above apply equally to the speculative combination of Ringer and Forbes, Jr. Namely, the selection of differently shaped indents on the flaps of a blank, and then arranging differently shaped indents on adjacent side panels, followed by selection of adjacent side panels, with one to have a rounded indent surface and another with an angular indented surface, is not taught or suggested by Ringer or Forbes, Jr., taken either alone or in combination. Only one with 20-20 hindsight would make this selection

Furthermore, there is nothing in Ringer and Forbes, Jr., taken either alone or in combination, that would suggest to one of ordinary skill in the art to further change the shapes of the side panels and the nature of the end panels.

Accordingly, this invention as claimed in claim 1 is not obvious over any combination of Ringer and Forbes, Jr.

Since claims 2 and 4 to 9 are dependent on claim 1, it is submitted that these claims are also inventive and unobvious to one of ordinary skill in the art under 35 U.S.C. 103(a).

The following chart points many of the differences between applicant's claim 11 and the disclosure of Ringer:

	Claim 11	Ringer
1	A corrugated cardboard <u>support</u> (10) formed from a blank (2) by folding and glued assembly,	Disclosed is a collapsible <i>container</i> 10 fig 1 (and page 2 lines 32-33) formed from a blank 10 (Figure 2).
2	which upon such assembly cannot be unglued and returned to the unfolded blank state,	in transforming the blank 10 into container 10, portion 26b has to be glued to end wall panel 27 (page 3, lines 65-67). Portion 28b is also glued to adjacent endwall panel 29 (page 4 lines 21 to 23) after use the collapsible container 10 is designed to be folded or collapsed after the material contained therein has been removed page 5 lines 52-55
3	the support comprising two substantially parallel opposing main body forming panels 18, 20	container generally comprises <u>four</u> substantially equal sidewall panels 16, 17, 18 and 19 page 3, lines 21 to 23 and Figure 1, forming the body panels. No defined main body forming panel
4	and two pairs of opposing side walls, X,Y.	<i>no separately defined opposing side walls, just four sidewall panels, Fig 1. Therefore only has one pair of opposing side walls.</i>
5	wherein one of the pairs of opposing side walls Y is formed from at least two interlocking opposing indents,	Top and bottom of carton formed from two interlocking indents, see Fig 1. The one pair of opposing side walls is formed from at least two interlocking opposing indents 26 and 28.
6	one of the side walls of the other pair of opposing side walls is formed from two end flaps	one of the side walls is <u>not</u> formed from <u>two</u> end flaps, but from the four main body panels (Fig. 1), only one end flap present.

7	provided at one end of each main body forming panel,	no end flaps on each main body forming panel, only one end flap in the form of connecting panel 20
8	each end flap being substantially the same length as its opposing side wall	<i>each end flap does not have a length substantially the same as the length of a middle panel or one of the sidewall panels (see Figs 1,2), indeed the connecting panel 20 in Figure 2 is considerably shorter in length than any of the other panels.</i>
9	and the other side wall of the pair being formed from a middle panel between said body forming panels,	the other side wall of the pair is not formed from a middle panel between said body forming panels
10	and wherein opposing indents are provided on each part of each of one pair of opposing side walls,	mirror image indents are provided (Figure 2) on side flaps 26 and 28
11	wherein one indents has a rounded surface	indents do not have a rounded surface
12	and the other has an angular surface.	side flaps 26, 28 do have angular indents.

Out of the 12 limitations of claim 11 listed above, Ringer does not disclose 7 of those limitations. There are only 5 limitations in common, namely 2, 3, 5, 10 and 12.

Consider these limitations in the light of Weaver and Forbes, Jr.:

Respecting Weaver, with regard to limitation 2 of claim 11, Weaver's carton is designed to be able to be placed in a collapsed or knocked down condition and then easily erected for packing (page 2, lines 27-28). Weaver

does not disclose or suggest or even hint of two substantially parallel opposing side walls, but instead has four substantially parallel equal body panels 12, 14, 16 and 18 (figure 1). Weaver therefore, does not have two pairs of opposing side walls; only has one pair of opposing side walls forming the top and bottom of the carton (see figures 2 and 3).

With regard to the one pair of opposing side walls being present as represented by the top and bottom of Weaver's carton, there is only one side of one pair of opposing side walls is formed from at least two interlocking indents.

There is no pair of opposing side walls formed from two end flaps in Weaver. Indeed, Weaver only has a small glue flap 20, and it is not substantially the same length as its opposing side wall.

Weaver's middle panel between two main body forming panels does not form a side wall of a pair of opposing side walls.

In addition, only side flaps 43 and 55 on one side of Weaver's blank possess indents (Fig. 1) and these indents are not angular, but rounded, on adjacent side flaps, unlike the structure of claim 11.

The deficiency of Forbes, Jr. is that there are not *two* end flaps of substantially the same length provided as an opposing side wall.

Furthermore, as Forbes, Jr. forms an open box or tray, there is not *a pair* of opposing side walls formed from opposing indents. Instead, there is only one wall formed from interlocking flaps 22 and 24. These interlocking flaps

slide over each other to open and close. In contrast, in the support of claim 11 the indents interlock and do not readily open.

Finally, Forbes, Jr. does not teach a rounded and angular indent on adjacent flaps and on opposing sides of the blank.

Therefore, it is submitted that the 7 limitations of claim 11 missing from Ringer are not disclosed or alluded to by Weaver or Forbes, Jr. taken either alone or in combination.

Accordingly claim 11 is not obvious in view of any combination of Ringer, Weaver and Forbes, Jr.

Respecting claim 12, the same features are missing from Ringer with respect to claim 12 as are missing from claim 11.

Therefore, the same argument can be applied to claim 12 as were detailed for claim 11 above with regard to Ringer, Weaver and Forbes, Jr., and these arguments are hereby incorporated by reference in their entirety.

Accordingly claim 12 is inventive and unobvious in the light of Ringer, Weaver and Forbes, Jr. as outlined above.

As claim 12 has been shown to be unobvious, claims 13, 14 and 15 depend upon and are more limited than claim 12 and are also equally inventive and unobvious.

In paragraph 4, the examiner has made a rejection against claims 1, 2, 4-9 and 11-15 under 35 U.S.C. 103(a) as being allegedly unpatentable over Henry in view of Single and either Weaver or Forbes, Jr.

The examiner contends that Henry discloses all structure of the claimed blank/support except formation of the blank/support from corrugated board and a rounded surface on the other opposing side flaps.

Single is asserted to teach that is known to make a collapsible container from corrugated board. Each of Weaver and Forbes, Jr. is asserted to teach that it is known to make automatically collapsible end closures with rounded surfaces or edges.

The examiner then contends that it would have been obvious to make the blank/container in Henry using corrugated board as taught by Single to acquire the well known advantages of corrugated board, i.e. strength insulation, puncture resistance, etc., within a container formed as in Henry, since use of corrugated board is notoriously well known in the art.

The examiner further contends it would also have been obvious to make the auto end closure in Henry with rounded edges as taught by either Weaver or Forbes, Jr. to allow easier sliding engagement/disengagement of the *interlock during erection and collapse of the container*. (emphasis added).

Before comparing claim 1 of the present invention and Henry and the cited references the applicant submits the following:

The examiner still refers in paragraph 4 to the 'interlock during erection and collapse of the container'. Firstly, it is respectfully submitted that the blank of the present invention forms a support. Once the support is constructed it is not possible for it to hold anything with its interior. It forms a

sealed unit used to support or display goods (see paragraphs 0002 and 0027 of the specification).

Secondly, the support of the invention as claimed cannot be readily collapsed once erected without destroying the support. The nature of the end flaps and side flaps and their glued relationship prevents this. Therefore reconsideration of the rejection is earnestly and respectfully requested.

Applicant presents the following table to highlight the differences between the structure recited in claim 1 and the disclosure of Henry:

	Claim 1	HENRY
1	A corrugated cardboard blank for folding and glued construction of a <u>support</u>	Discloses a paperboard or plastic blank which is folded and glued to form a <u>container</u> (page 3 line 41 to page 3 line 67)
2	which upon such construction cannot be unglued and returned to the unfolded blank state,	carton can not be returned to unfolded state but can be collapsed for shipping (page 3 lines 68-72)
3	comprising two main body forming panels,	has four main body panels (see Figure 2)
4	a middle panel between said body forming panels	no separate middle panel between the body forming panels
5	and two end flaps provided at one end of the each main body forming panel, each end flap having a length substantially the same as the length of the middle panel,	does not have <u>two</u> end flaps, one at each end of the main body forming panel, only has a seal flap 30, which is considerably smaller in length than the body panels. (see Figure 2)
6	each main body forming panel and the middle panel having opposing side flaps,	all body panels have opposing side flaps, 34 to 37 and 38 to 41 on Figure 2
7	each side flap of the main body forming	side flaps 34, 36, 38 and 40 being provided with an indent 44, (see

	panels being provided with an indent	Figure 2)
8	wherein the indent on one of each opposing side flap has a rounded surface	opposing side flaps do not have indents with rounded edges.
9	and the indent on the other opposing side flap has an angular surface	<u>all</u> indents on all side flaps have angular surfaces. (see Figure 2)
10	for lockingly securing the side and end panels into weight bearing supporting disposition. *****	Indents do serve to interlock the side flaps, <u>but</u> carton can not bear weight and is easily collapsed for shipping or for retrieving contents of carton (page 1, lines 66-69).

Henry, discloses a paperboard or plastic self-forming storage carton which can be erected and then collapsed (column 1 lines 61-70). The carton in Henry is not designed as a support, nor is it designed to withstand large compressive forces. There is no teaching in Henry of a support with an end closure system formed from side flaps that will lock permanently when the support is erected.

Applicant presents the following table to highlight the differences between the structure of claim 1 and the disclosure of Ward:

	Claim 1	Ward
1	A corrugated cardboard blank for folding and glued construction of a <u>support</u>	Discloses a blank for a container which can be folded and constructed to form the container. (see page 4 lines 28- page 5 line 4)
2	which upon such construction cannot be unglued and returned to the unfolded blank state,	Container can not be unglued and returned to the unfolded blank state.
3	comprising two main body forming panels,	blank has two main body panels 11 and 13 (Figure 1)
4	a middle panel between	blank has a middle panel between

	said body forming panels	said body forming panels 12 (Figure 1)
5	and two end flaps provided at one end of the each main body forming panel, each end flap having a length substantially the same as the length of the middle panel,	blank has two end flaps 24, 14, at one end of each main body forming panel, but only one end flap 14 is of the same length substantially as the length of the middle panel (See Figure 1)
6	each main body forming panel and the middle panel having opposing side flaps,	Each main body forming panel 11, 13 and the middle panel 12 has opposing side flaps (15, 17, 19, 21 and 16, 18) respectively (Figure 1)
7	each side flap of the main body forming panels being provided with an indent	and each side flap 15, 17, 16, 18 of the main body forming panels 11, 13 respectively, being provided with an indent 31
8	wherein the indent on one of each opposing side flap has a rounded surface	However, the indents are all the same such that the indent on one of each opposing side flap does not have a rounded surface (Fig 1)
9	and the indent on the other opposing side flap has an angular surface	All indents are angular 31 (Figure 1)
10	for lockingly securing the side and end panels into weight bearing supporting disposition.	Whilst the side flaps can interlock, the resultant carton can not bear weight.

Ward also discloses a container with an opening for receiving objects.

Ward does not disclose a support that is capable of resisting compressive and tensile loads by way of permanently locked end panels formed from side flaps in which one of the side flaps on the end-panel has a rounded shaped notch and the other side flap on the end-panel has an angularly shaped notch, thereby

providing a strong, locked end panel which can not be reopened when the two notches on the side panels interact.

Starting with either Henry or Ward, in view of Single and either Weaver or Forbes, Jr.:

None of the references either alone or in combination disclose a blank which has two end flaps, one on each side of the main body, forming panels, both of which are substantially the same size as the middle body forming panel located between the two main body forming panels, as recited in applicant's claims, notably applicant's claim 12.

In addition, none of the references disclose a blank in which the side flaps on the main body forming panels are differently shaped on each of the main body forming panels, namely where one is rounded and the other one angular such that adjacent side flaps on the main body forming panels have differently shaped indents.

This combination of structural elements is absent from all of the references. Furthermore, none of the references disclose supports for displaying goods capable of withstanding considerable loads.

Therefore, it is submitted that claims 1, 2 and 4-9 are potentially unobvious over any combination of Henry and Ward with either Single, Weaver or Forbes, Jr.

The same features missing from the blanks described in relation to the above-noted references are correspondingly missing from the erected support,

such that none of the references taken either alone or in combination disclose a support with permanently locked end panels.

Furthermore, there is no teaching in view of any of the cited references taken either alone or in combination which would direct a person of ordinary skill to produce a support with permanently locked end panels achieved by having one of the flaps on the end panel with a notch that is rounded and the other flap on the end-panel having a notch which has an angular surface, thereby producing a support capable of withstanding a considerable load.

In addition, none of the references teach a support in which one wall of one of the pairs of side walls is formed from two end flaps of the same size thereby providing considerable strength and the opposing wall is formed from a middle body forming panel.

Therefore, it is submitted that claims 1, 2, 4-9 and 11 are also patentable over any combination of Henry or Ward in view of Single and further in view of either Weaver or Forbes, Jr., since no combination of these documents teaches a support in which the end-panels are able to engage and then are not capable of disengaging without destruction of the support.

In paragraph 5, the examiner has rejected claims 10, 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over Henry in view of Single and either Weaver or Forbes, Jr. and further in view of either Rexford or Zimmerman.

The examiner contends that while Henry fails to evidence orientation of the flutes of the corrugated board longitudinally of the blank, both Rexford and

Zimmerman teach that it is known to orient the corrugations in a tubular carton blank in the longitudinal direction of the blank. The examiner is therefore asserts that it would have been obvious to orient the corrugations in Henry in the longitudinal direction of the blank as taught by either Rexford or Zimmerman to allow easier folding of the flaps during production and to provide greater crush resistance laterally at the corners of the container.

In paragraph 6 the examiner has again rejected claims 10, 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over Ringer in view of Weaver or Forbes, Jr. and further in view of either Rexford or Zimmerman.

Claim 10 is a dependent claim and is therefore submitted to be inventive by virtue of its dependency in terms of the submissions made above.

Likewise with regard to claims 16 and 17 which are newer independent claims, these claims have multiple features which differ from the prior art as highlighted with regard to claims 1-15 above, and are also therefore considered to be inventive.

With regard to the fluting aspect of claim 10 which is also present in claims 16 and 17, starting with Henry, if one considers Figure 1, the fluting is seen to 'run' on panel 12 from the top to the bottom of the container. That is, in Figure 2 relating to the blank, the fluting will also run 'down' the blank as seen in Figure 6. In contrast, in the present invention, the fluting of the support runs longitudinally along the length of the blank as indicated by C and

the arrow on Figure 1. That is, the direction of fluting in the support of the present invention has been turned through 90°.

Likewise in Figure 2 of Ringer, the fluting (if, indeed, this is shown, which is questionable) runs from the top to the bottom of the body panels 22 to 25. In Rexford the fluting, if this is what is shown, and this is also questionable, also appears to run from the top to the bottom of the panels 5 and 6 in Figure 2 such that in the blank of Figure 1 the fluting in fact must run vertically or transversely down the blank and not longitudinally along the length of the blank as in the blank of the invention.

In Zimmerman there is no blank. However, it appears from Fig. 1 that the fluting also runs down the length of the side panels 12. This again is in contrast to the support of this invention in which the fluting runs longitudinally across the panels and across the blank.

Therefore it is submitted that the direction of the fluting is in fact not obvious in the light of the prior art documents.

The applicant also respectfully requests that the Examiner considers the following:

In a box that has a top and a bottom, the direction of the fluting will always run from top to bottom. This is due to the fact that this direction is where the main stacking strength of the box is required. In contrast, in the present invention, because the cardboard blank is being used to prepare a cardboard support, having a crash lock system on two opposing sides, the

fluting has been rotated 90 degrees in order to obtain the compressive strength required of the support. Therefore, in the present invention the fluting of the crash lock end panels runs counterintuitively. By altering the fluting direction, the tensile strength of the support has been significantly increased with respect to the crash lock end panels.

As a result, when compressive forces are applied to the top and side walls of the support, the locked notches on the side panels further engage, effectively pulling against one another to further strengthen the support. The greater the compressive force placed on top of the support, the stronger the lock becomes between the notches of the side flaps on the opposing side walls of the support. A person ordinarily skilled in the art of box design would not be motivated to increase the strength of the side panels formed from the side flaps in the direction that has been chosen in this invention, due to the fact that containers require different, much lower load bearing capabilities. The fact that the support is made from corrugated board further increases the support compressive load bearing capabilities.

Consequently, claims 10, 16 and 17 recite structure that is inventive and unobvious in light of Henry in view of Single and either Weaver or Forbes, Jr. and further in view of either Rexford or Zimmerman and furthermore over Ringer in view of either Weaver or Forbes, Jr., and further in view of either Rexford or Zimmerman.

Applicant respectfully solicits reconsideration and withdrawal of all of the claim rejections and notification of the allowability of the application.

To the extent there is any fee required in connection with the receipt, acceptance and/or consideration of this paper and/or any accompanying papers submitted herewith, please charge all such fees to Deposit Account 50-1943.

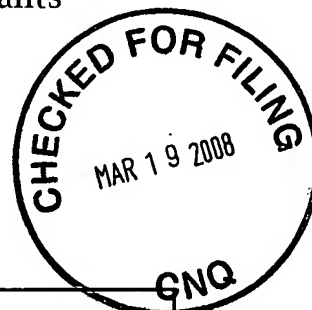
Respectfully submitted,

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